

Listing of Claims

The following listing of claims will replace all prior versions, and listings, of claims in the subject application:

Claims 1-42 (canceled)

43. (new) An image forming apparatus which is operatively connected to a central processing apparatus, said apparatus comprising:

a performance measuring mechanism which continuously monitors use of an image memory and calculates a memory usage rate of the image forming apparatus;

a status memory that stores performance measurement data including said memory usage rate calculated by said performance measuring mechanism;

a data reading mechanism that receives a request for data transmission from said central data processing apparatus and that, in response to said request, reads said measurement data relating to said memory usage rate from said status memory; and

a data transfer mechanism that transfers said data read by said data reading mechanism to said central processing apparatus.

44. (new) A memory monitoring method for an image forming apparatus, comprising:

continuously monitoring usage of an image memory;

calculating a memory usage rate of said image forming apparatus according to the

monitored usage of said image memory;

storing performance measurement data including the calculated memory usage rate;

receiving a request for data transmission from a central data processing apparatus; and

transferring said stored measurement data to said central processing apparatus, in response to said request.

45. (new) An image forming apparatus which is operatively connected to a central data processing apparatus, said image forming apparatus comprising:

a performance measuring mechanism which monitors each function of the image forming apparatus and maintains a corresponding count of a number of times that the function of the image forming apparatus has been used;

a memory that stores performance measurement data including the function usage counts;

a data reading mechanism that receives a request for data transmission from said central data processing apparatus and that, in response to said request, reads said measurement data relating to the function usage counts from said memory; and

a data transfer mechanism that transfers said data read by said data reading mechanism to said central data processing apparatus.

46. (new) A function monitoring method for an image forming apparatus, comprising:

monitoring each function of the image forming apparatus;

maintaining a corresponding count of a number of times that the function of the image

forming apparatus has been used;

storing performance measurement data including the function usage counts;

receiving a request for data transmission from a central data processing apparatus; and

transferring said stored measurement data to said central processing apparatus, in response to said request.

47. (new) An image forming apparatus which is operatively connected to a central data processing apparatus, said image forming apparatus comprising:

a performance measuring mechanism which maintains a count of a number of times that communications have been performed by the image forming apparatus in a predetermined period of time;

a memory that stores performance measurement data including said count of the number of times that communications have been performed;

a data reading mechanism that receives a request for data transmission from said central data processing apparatus and that, in response to said request, reads from said memory said measurement data relating to said number of times that communications have been performed; and

a data transfer mechanism that transfers said data read by said data reading mechanism to said central data processing apparatus.

48. (new) A communications monitoring method for an image forming apparatus,

comprising:

maintaining a count of a number of times that communications have been performed by the image forming apparatus;

storing performance measurement data including the count of the number of times that communications have been performed;

receiving a request for data transmission from a central data processing apparatus; and

transferring said stored measurement data to said central processing apparatus, in response to said request.

49. (new) An image forming apparatus which is operatively connected to a central data processing apparatus, said image forming apparatus comprising:

a performance measuring mechanism which monitors line vacancy of the image forming apparatus and measures an amount of time of line vacancy;

a memory that stores performance measurement data including said amount of time of line vacancy measured by said performance measuring mechanism;

a data reading mechanism that receives a request for data transmission from said central data processing apparatus and that, in response to said request, reads said measurement data relating to said amount of time of line vacancy from said memory; and

a data transfer mechanism that transfers said data read by said data reading mechanism to said central data processing apparatus.

50. (new) A line vacancy monitoring method for an image forming apparatus, comprising:

- monitoring line vacancy of the image forming apparatus;
- measuring an amount of time of line vacancy;
- storing performance measurement data including the amount of time of line vacancy;
- receiving a request for data transmission from a central data processing apparatus; and
- transferring said stored measurement data to said central processing apparatus, in response to said request.

51. (new) An image forming apparatus which is operatively connected to a central data processing apparatus, said image forming apparatus comprising:

- a performance measuring mechanism which monitors a number of recording sheets that have been used for image forming operations of the image forming apparatus and maintains a count of a number of occurrences that the recording sheets are spent out;

- a memory that stores performance measurement data including said count of the number of occurrences that the recording sheets are spent out;

- a data reading mechanism that receives a request for data transmission from said central data processing apparatus and that, in response to said request, reads said measurement data relating to said count of the number of occurrences that the recording sheets are spent out; and

- a data transfer mechanism that transfers said data read by said data reading mechanism to said central data processing apparatus.

52. (new) A line vacancy monitoring method for an image forming apparatus, comprising:

monitoring a number of recording sheets that have been used for image forming operations of the image forming apparatus;

maintaining a count of a number of occurrences that the recording sheets have been spent out;

storing performance measurement data including the count of the number of occurrences that the recording sheets have been spent out;

receiving a request for data transmission from a central data processing apparatus; and

transferring said stored measurement data to said central processing apparatus, in response to said request.

53. (new) An image forming apparatus which is operatively connected to a central data processing apparatus, said image forming apparatus comprising:

a performance measuring mechanism which monitors operations of the image forming apparatus and measures at least one performance related to the operations of the image forming apparatus;

a memory that stores performance measurement data relating to said at least one performance measured by said performance measuring mechanism;

a data reading mechanism that receives a request for data transmission from said central

data processing apparatus and that, in response to said request, reads said measurement data relating to said at least one performance; and

a data transfer mechanism that transfers said data read by said data reading mechanism to said central data processing apparatus.

54. (new) A performance monitoring method for an image forming apparatus, comprising:

monitoring operations of the image forming apparatus;

measuring at least one performance related to the operations of the image forming apparatus;

storing performance measurement data corresponding to said at least one performance related to the operations of the image forming apparatus;

receiving a request for data transmission from a central data processing apparatus; and

transferring said stored measurement data to said central processing apparatus, in response to said request.